The Christian Rural Fellowship Bulletin

Published by The Christian Rural Fellowship, Room 1111, 156 Fifth Avenue, New York, N. Y.

Number 74 September 1942

THE ELEVENTH COMMANDMENT

HOLBROOK LIBRARY PACIFIC SCHOOL OF RELIGION

By WALTER C. LOWDERMILK

This article was written in the biblical land of Palestine as the author was completing a fifteen months' study of man's stewardship of land down through the ages in fifteen countries of the Old World. Traveling over 30,000 miles by train, airplane, automobile, boat and afoot, Dr. Lowdermilk, as Assistant Chief of the Soil Conservation Service, surveyed the land as civilization has used it and passed it down to the present generation. His special interest was human use as it relates to soil erosion, soil and water conservation and flood control. His studies took him into Egypt, Algeria, Tunisia, Lybia, Trans-Jordan, Palestine, Lebanon, Syria, Iraq, Italy, France, Holland, Scotland and England. As a background to this survey he previously had made five different explorations into the interior of northern China so that in "The Eleventh Commandment" he writes with a vivid world picture before him of the sins of civilization against Mother Earth.—Editor.

MOSES was inspired to deliver to the Children of Israel wandering in the wilderness of Sinai the Ten Commandments to regulate man's relation to his Creator and to his fellow men. These guides of conduct have stood the test of time for more than 3,000 years. Did Moses, during those forty years in the wilderness, fail to foresee the vital need of the future for an additional commandment to regulate man's relation and responsibility to Mother Earth, whose cultivation and production must nourish all generations?

If Moses had foreseen what was to become of the "Promised Land" and vast areas of wasted lands, such as we have seen in China, Korea, North Africa, Asia Minor, Mesopotamia and our own United States; namely, the wastage of land due to suicidal agriculture and the resulting man-made deserts and ruined civilizations, if he had foreseen the impoverishment, revolutions, wars, migrations, and social decadence of billions of peoples through thousands of years and the oncoming desolation of their lands, he doubtless would have been inspired to deliver an "Eleventh" Commandant to complete the trinity of man's responsibilities—to his Creator, to his fellow men, and to Mother Earth. Such a commandment should read somewhat as follows:

XI. Thou shalt inherit the holy earth as a faithful steward, conserving its resources and productivity from generation to generation. Thou shalt safeguard thy fields from soil erosion, thy living waters from drying up, thy forests from desolation, and protect thy hills from overgrazing by thy herds, that thy descendants may have abundance forever. If any shall fail in this stewardship of the land thy fruitful fields shall become sterile stony ground and wasting gullies, and thy descendants shall decrease and live in poverty or perish from off the face of the earth.*

But no such commandment has been a part of man's attitude toward his occupation of the earth except in very limited areas. Man has generally been an exploiter, despoiler and destroyer of natural physical, plant and animal resources of the earth. He has brought upon himself the curse of destruction, impoverishment and desolation in vast areas.

Today literally billions of acres of originally productive lands throughout the world bear the curse of unfaithful stewards through the centuries, and their sins of land misuse are visited upon their descendants not only unto the third and fourth generations, but unto the tillers of exploited lands today. This curse upon the land, by generations of ignorance, neglect, lack of forethought, greed, or oppression of present individual interest over the social interest, represents a waste to humanity so stupendous as to exceed the comprehension of the human mind.

"**** for the land is mine; for ye are strangers and sojourners with me." Lev. 25:23.

The world is now more fully occupied by the human race than ever before. Fully two billion souls must find their daily food from the land and waters of the earth. All lands have been occupied or possessed by nations. No free land remains.

In the face of the limited area now available to the human race, the idea that man is still destroying its usefulness by inconsiderate and wasteful methods, comes as a shock to thinking people. If man is making deserts out of productive lands it is a matter not only of national, but of world-wide concern.

An international tragedy, emphasizing the lack of available lands for settlement, is now taking place in the Mediterranean area. Countless refugees from Central Europe, with possessions confiscated, are fleeing from persecutions unparalleled in modern history. Their ships float for weeks, even months, unable to find a refuge. They are turned away from every port; there is no room for them on the land. But the refugees who have gained admittance to Palestine are carrying out the finest example of devotion to and reclamation of land that I have seen on three continents. What they are doing represents the possibilities of these wandering refugees if given a chance.

This overcrowded condition in a world of land-hungry nations, whose soils are being impoverished by erosion and misuse while populations increase, demands a new conception of individual and national obligation to the earth and to posterity. When men are unfaithful stewards in their use of the land they bring a curse upon themselves and upon succeeding inhabitants. They find the very source of livelihood washed away, gradually and diabolically impoverishing them. Life becomes such a struggle for mere physical existence as to warp and crush the human spirit, bringing on revolutions, wars, migrations, or political and social decadence. In time the insidious forces of soil erosion and land wastage reach proportions beyond the control and resources of individual

*First given by the writer in a radio broadcast from Jerusalem, June, 1939.

Revised and Reprinted from AMERICAN FORESTS, January, 1940, The Magazine of The American Forestry Association, Washington, D. C.

tillers of the soil; wearied and discouraged, they migrate, rebel, fight, or perish in the wrecks of misused land.

Travels through the morgues of former prosperous areas, now desolate and depopulated, are depressing to one who reads the Macbethan tragedy written far and wide on the landscape. It is appalling to see ruins of once great cities, of civilizations and flourishing cultures, strewn like weather beaten skeletons in the graveyard of their erosion-wasted lands. In north Africa we found huge olive presses littering areas where today not an olive tree grows within the circle of the horizon. Ruins of stone wine presses were there in great numbers as the only indication of the land use before man-induced erosion had transformed its productivity into desolation. Thistles and thorn-bush are the inheritance of occasional Bedouin Nomads who are ready to fight for every water hole and blade of grass which appears after rains. They pitch their tents on the ruins of magnificent stone structures, whose floors were masterpieces of mosaics, whose porticoes were supported by massive columns and whose courts were beautified by marble statuary. Behind all these ruins is the stirring drama of hunger, invasion, and destruction of life. Death of fertile lands and of their peoples is a nameless tragedy written across landscape after landscape. Ruins of the land are more tragic than ruins of cities.

It fills one with consternation to visit regions which have lain desolate and unproductive for centuries with their beautifully cut stone dams completely silted up as at Kurnub, in the Negeb of Palestine, or terraces broken down as above Petra and Jerash, in Trans-Jordan, or aqueducts crumbled as in North Africa. In northern Syria, southeast of Antioch, we found erosion at its worst on a million acres of lands which supplied ancient Rome with its finest wines and olive oil. Here erosion has swept off to bed rock from three to six feet of productive soil and transformed the ancient vineyards into a vast and glaring man-made desert. In this desolation a hundred "dead cities," or villages, of beautifully cut stone, loom ghost-like as tombstones on the horizon as evidence of the ancient prosperity of this populous area. Such areas were abandoned when the erosion-wasted soils would no longer feed the inhabitants.

It was astonishing and revealing to find Mesopotamia literally covered with miniature mountain ranges of silt, some ten, twenty and up to fifty feet in height, piled beside the ancient irrigation ditches. This silt, the offspring of erosion in overgrazed watersheds, tells a story of the ceaseless struggles of millions of nameless toilers, before the potentially rich irrigated lands were allowed to revert again to desert, when due to wars or political decadence, the cleaning of silt from the canals was no longer continued. This valley, which formerly maintained from 30,000,000 to 50,000,000 people, supporting renowned civilizations of culture, refinement and learning, now maintains on a very low standard about 5,000,000, whose comforts and accomplishments are a sad commentary on the decadence of cultures.

The Negeb and Sinai region is believed by Jarvis to have supported fully 100,000 in habitants, but now it scarcely suffices for 2,000 Bedouins. In Trans-Jordan studies by the American School of Oriental Research reveal an extensive ancient agriculture from more than a thousand years B.C. to the 7th century A.D. The loss of

Such a lush harvest, after a thousand years or more of agriculture and right land use in rural England, well exemplifies the first clause of the proposed Eleventh Commandment: "Thou shalt inherit the holy earth as a faithful steward, conserving its resources and productivity from generation to generation. Thou shalt safeguard thy fields from soil erosion, thy living waters from drying up, thy forests from desolation, and protect thy hills from overgrazing by thy herds, so that thy descendants may have abundance forever."

fertile soil and the resulting reduction of food supply from the lands of Trans-Jordan are greater than the proportional decrease in population. The food supply and the standards of living and embellished cities among the cultured ancients have little counterpart in the rough stone houses and wretched villages, and in the camps of illiterate Bedouins of today.

The staggering soil wastage of North China is unbelievable. Historical records show that mountain slopes of North China were once heavily forested. Populations increased and exceeded the carrying capacities of alluvial valleys, thereupon farmers cleared away the forests and pushed cultivation higher and higher up the slopes. Trees were cut, the fertile soils were dug up and planted to crops. In from three to twenty years, depending upon gradients of slopes, the soils were washed off and farmers abandoned these fields to clear new lands. Finally, this shifting cultivation was pushed up slopes to the summits. Accelerated erosion cut great gullies, and bared the rocky flanks of the mountains. Today, hundreds of millions of acres have been seriously reduced from production to barren slopes and labyrinths of gullies. Perennial streams are gone; lowlands have been damaged by debris from the slopes; old irrigation systems have been clogged and put out of use, while floods far away in lowlands and deltas of the rivers rise to higher stages and cause enormous destruction of life and property.

Some students have attributed this disastrous loss of productivity, and desiccation, to adverse climatic change. But throughout northwest China I found temple forests as green emeralds in ugly settings of gully-riddled landscapes, reproducing themselves naturally in the present prevailing climate. In several remote areas I found the diabolic process at work where a virgin forest was being cleared, not for timber, but to get at the soil for food production. The deep soils were sowed to crops; soil erosion soon destroyed the fruitfulness of the sloping lands.

In spite of this vast destruction by increased populations hard pressed for food, the Chinese in the alluvial and rice growing areas are the world's best farmers. For 6,000 years they have farmed these lands which still produce four crops and more yearly. In west and south China, especially, they have level-terraced all slopes by infinite labor and patience, and have shown what good stewardship of the land may be.

During five expeditions into North China prior to 1927, my experimental studies determined for the first time comparative rates and amounts of run-off and soil erosion from land within temple forests and adjoining like areas which had been cultivated and denuded. We found that often sixty times as much water, in the form of liquid mud, flowed from cultivated and barren areas as from the forest. The run-off from the latter was scarcely disclosed, showing little or no erosion, while the storm run-off on denuded areas tore away the soil, causing permanent loss to the land.

On the basis of these measurements of widespread soil loss by erosion, my estimate is that soil has been removed to an average depth of from twelve to eighteen inches from hundreds of millions of acres of sloping lands in northwest China by man-induced erosion. By such diabolic processes areas formerly capable of supporting great populations in prosperity, now provide meagre existence for lesser numbers.

Until very recently, the desiccation and torrential flooding of inhabited areas was considered an act of a Supreme Being. That man may be a decisive factor to so-called vagaries of many natural phenomena is a recent conception. The rapid growth of this idea may be partly attributed to the fact that America has developed desiccated and unproductive lands more rapidly than ever before in the history of the world. Effects have followed so closely on the heels of causes that the reasons are glaringly obvious to students of land problems. Striking transformations have been visible to eye witnesses within a single generation. We have come to know soil erosion for what it is.

The exploitation of great areas, whether in America, Africa, Australia, or elsewhere, where farmers and stockmen have cleared and grazed new lands at a rate hitherto unknown, tell the same story. Within the memory of the present inhabitants of certain portions of the world, men have witnessed the transformation of fertile plains from luxuriant vegetation, into barren windswept desert-like lands, periodically whirling blizzards of fine soils to parts unknown, and leaving behind sandy hummocks. Stockmen tell of grazing paradises, which within their day have been depleted of vegetation and gouged with gullies. People who paid taxes for the building of irrigation dams and reservoirs have already seen some of them abandoned and useless, while other reservoirs are silting up at an alarming rate.

The vast virgin forests of all these newly exploited continents have largely disappeared under wasteful exploitation. It has been annihilation rather than rational cutting with a planned maintenance of the forest for sustained yield, and for the control of erosion and flashy storm run-off. In a few countries such as Germany, Italy, and Japan, a high conception of the permanent value of natural resources for future national greatness has been developed as a vital policy of national planning. Germany and Japan are exemplary in forest and land conservation. Italy is rushing her program of conservation and reclamation as a basis for a greater empire.

Fortunately, though belated, a national movement for soil and water conservation has been initiated within the past few years which has aroused the American people to the menace of soil erosion. This enemy of civilizations had already destroyed or seriously impoverished 282,000,000 acres of American lands and impaired the productivity of 775,000,000 acres more. As a result, the United States has begun the largest and most comprehensive movement for soil and water conservation in the history of the world. But only a beginning has been made; it must be continued and enlarged.

If a nation would project itself into the future it must protect its lands from the ravages of soil erosion. When lands are impoverished, peoples lower their standards, both physically and spiritually. Soil erosion expresses itself as a deficiency disease of the land which begets deficiency of food, vitality, and higher values for peoples and nations.

As we travel through those lands which have been farmed for centuries, and over which destructive armies have marched and nomads have run their herds, where peoples have risen to varying degrees of culture and have been thrown back again to primitive conditions, we are deeply moved by the futility, wastefulness and ineffable sadness of man's effort to adjust himself to the land. Everywhere in the ancient home of mankind one sees decadence, ruins, fragments of a greater past. It is an arresting tragedy. How can we make peoples realize that present day agricultural operations have everlasting significance for present and succeeding generations?

Soil erosion, the destroyer of land, has been diagnosed; its processes are known and its control is possible. The hope for the future lies in a realization that man has an obligation born of a higher economics, a moral obligation to bountiful Mother Earth which must nourish all present and future human beings as long as it lasts. It is nothing short of criminal for individuals of one genera-

tion to sacrifice the right of future man to survive because of traditions of special privileges to exploit the earth. The present and future well-being of a people calls for long range policies for the maintenance of productive lands and resources. These policies must be founded on what is right for the greatest number of people in the long run. It becomes a matter of social economics and national ethics. Practices of land use which work against the good of the whole must be regulated, whether by law or public opinion, to achieve a dual purpose: to maintain individual initiative, and to safeguard the integrity of resources.

Exploitation is self limiting and suicidal. It uses up the principal and makes no provision for future balancing of the national resources budget. Finally when a nation is reduced to desperation to supply food for its people, it will go to an expense far beyond any tax burden yet known to cultivate diminishing soils. Rock wall terraces in old lands prove the Herculean labor and expense to which people will go to maintain a food supply; the cost of such terracing of steep lands would amount to several thousand dollars an acre at labor wages today. Yet such works were carried out to survive. The economics of survival prevailed.

Land thus becomes, not an economic commodity, but an integral part of the corporate existence of a nation, even as its people. This principle justifies the safeguarding of soils and the restoration of denuded areas on a basis of national ethics and national economy. Economic considerations of today must be shot through with economics of a higher order to meet problems of sustained land use constructively for generations to follow.

Thus for the very endurance of civilization, an ethical approach to land use as a trusteeship, to be used and handed down in a productive condition to succeeding generations, becomes imperative. Man expresses his moral obligation to posterity as surely through the earth as through his social institutions. The fertile or sterile lands which are passed on to feed future civilizations are, apart from blood descendants, our most direct link with the future. The ethical motivation identifies the interests of the individual with those of one's own family of today and tomorrow, outward through local groups to the nation, and eventually to mankind. It draws support and depth from experiences of the past to long range vision and conservation for the future.

Each nation today needs to have many a Moses of land conservation, to instill in the national consciousness the principle of an Eleventh Commandment to regulate man's relation to the holy earth as a faithful steward, to conserve its productivity from generation to generation. Then fields will be protected from soil erosion, water brooks from drying up, and hills from overgrazing by herds, and future generations may be assured of abundance forever.

With the recognition of man's moral obligation to Mother Earth, each nation must assume the responsibility of taking over the reclamation of wasted heritages by unfaithful stewards whose lands have become sterile stones and riddled with wasting gullies, and by intelligent land use bring them back to productivity as much as possible. When its resources are fully husbanded in the advanced knowledge of full conservation, the possibilities of the earth for increased populations are far beyond the imagination of mankind in general. If the vast energies of the human race could be directed toward a goal of conservation instead of destruction and despoliation, the good earth would respond with abundance of food for all.

And this desolate scene near the ruins of Timgad, in North Africa, where the small flock appears to be eating rocks, vividly portrays the result of ignoring the warning in the last clause of the Commandment: ". . . . If any shall fail in this stewardship of the land, thy fruitful fields shall become sterile, stony ground and wasting gullies, and thy descendants shall decrease and live in poverty or be destroyed from off the face of the earth"

Only by conservation in the fullest sense, of the basic resources of land, water, and the spirit of peoples, can we maintain the human values of wholesome standards of living, opportunity, freedom, justice, and faith in the destiny of our modern civilization. Only in conservation have we the assurance of continued progress in the search for that something which has led humanity out of the stone age to a modern industrial age of development. Only by conservation can we be led on to a higher spiritual and physical development which will express itself in stewardship of the earth for the well-being of humanity for all time.

PRINTED IN U. S. A.